



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/576,450

04/20/2006

Nobuhiko Tsuda

Q94064

3460

23373 7590 09/30/2009
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

BUIE, NICOLE M

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

09/30/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/576,450	Applicant(s) TSUDA ET AL.	
	Examiner NICOLE M. BUIE	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-12 is/are pending in the application.
- 4a) Of the above claim(s) 9-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20090819</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/11/2009 has been entered.

Response to Amendment

The amendment filed 09/11/2009 has been entered. Claims 1 and 3-12 are pending. Claims 9-12 were previously withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 1796

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al. (US 5,670,593).

Regarding claims 1 and 4-6, Araki et al. discloses a tetrafluoroethylene polymer aqueous dispersion containing 0.01-80 mol% of a functional fluorine-containing olefin (C6/L8-54) for example the formulas as shown below as well as their derivatives (C25/L26-C26/L49):



Araki et al. discloses in claim 1 the tetrafluoroethylene polymer aqueous dispersion wherein the tetrafluoroethylene polymer has a tetrafluoroethylene unit content of 20-99.99 mol%.

Additionally, it is possible to use **no usual free emulsifying agent** or decrease an amount thereof (C21/L57-63). It would have been obvious to one of ordinary skill in the art at the time of invention to have selected the overlapping portion of the ranges disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness. *In re*

Art Unit: 1796

9Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2144.05.

Regarding claim 3, since the instant specification describes a perfluoro based polymer which has a perfluoro unit content of not lower than 90 mole percent (See [0096-0098] of the corresponding PG Pub), the amount of tetrafluoroethylene in the polymer of Araki et al. meets the claimed range.

Regarding claim 7, Araki et al. does not disclose the tetrafluoroethylene polymer aqueous dispersion which has a solid matter concentration of 5 to 70% by mass. Additionally, Hirashima et al. teaches the solid matter concentration of the water-based emulsion is from 10 to 70 wt% (C8/L55-62). It would have been obvious to one of ordinary skill in the art at the time of invention to obtain a solid matter concentration as taught by Hirashima et al. in a composition of Araki et al. , and the motivation to do so would have been as Hirashima et al. suggests to improving storage stability and viscosity (C8/L55-62).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al. (US 5,670,593) in view of Hirashima et al. (US 5,856,392) as applied to claim 1 above, in further view of Araki et al. (WO 95-08598A, see English equivalent (US 5,925,705) for citation).

Regarding claim 8, Araki et al. (US '593) does not disclose the tetrafluoroethylene polymer aqueous dispersion wherein the particle comprising the tetrafluoroethylene polymer has an average primary particle diameter of 50 to 500 nm. Araki et al. (US '705) teaches the particle size is not more than 200 nm (C3/L14-22). Araki et al. (US '593) and Araki et al. (US '705) are analogous art concerned with the same field of endeavor, namely aqueous dispersions of

Art Unit: 1796

fluoropolymers produced from emulsion polymerization. It would have been obvious to one of ordinary skill in the art at the time of invention to use the particle size of Araki et al. (US '705) in the dispersion of Araki et al. (US '593), and the motivation to do so would have been to improve the stability of the dispersion (C3/L14-22).

Response to Arguments

Applicant's arguments with respect to the rejection(s) of claim(s) 1, 3-8, and 13 under 35 USC 103 (a) as being unpatentable over Araki et al. (JP '782) in view of Araki et al. (WO '598) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art. The following comment(s) apply:

A) Applicants' argument that WO '598 does not disclose a dispersion having a fluorine-containing surfactant content of not higher than 50 ppm by mass as required by the instant claims (P7-8) is persuasive.

B) The English equivalent of Araki et al. (JP '782) was used in the rejection above.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE M. BUIE whose telephone number is (571)270-3879. The examiner can normally be reached on Monday-Thursday with alternate Fridays off.

Art Unit: 1796

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571)272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. M. B./
Examiner, Art Unit 1796
9/18/2009

/Marc S. Zimmer/
Primary Examiner, Art Unit 1796